



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/617,751

07/14/2003

Jari Takala

042933/373949

3152

826

7590

07/06/2010

ALSTON & BIRD LLP
BANK OF AMERICA PLAZA
101 SOUTH TRYON STREET, SUITE 4000
CHARLOTTE, NC 28280-4000

EXAMINER

EVANS, KIMBERLY L

ART UNIT

PAPER NUMBER

3629

MAIL DATE

DELIVERY MODE

07/06/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.		Applicant(s)	
	10/617,751		TAKALA, JARI	
	Examiner		Art Unit	
	KIMBERLY EVANS		3629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 4-9, 12-18, 21-23, 26-32 and 35-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4-9, 12-18, 21-23, 26-32, and 35-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendments

1. This action is in reply to the response filed on April 7, 2010.
2. Claims 1, 9, 12, 14, 21, 22, 26, 28, and 30-32 have been amended.
3. Claims 2, 3, 10, 11, 19, 20, 24, 25, 33, and 34 were previously cancelled.
4. Claims 1, 4-9, 12-18, 21-23, 26-32, and 35-38 are currently pending and have been examined.

Claim Rejections - 35 USC § 112- 1st Paragraph

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.
6. Claims 1, 14, 21, 26, and 28 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

7. The added material which is not supported by the original disclosure is as follows: "...
 - (a) The newly recited claim limitations in Claims 1, 14, 26, and 28:
"...directing (or direct) a message to be sent..."
 - (b) The newly recited claim limitations in Claim 21:
"...a report is directed to be sent..."
8. In particular, Applicant does not point to, nor was the Examiner able to find, any support for the newly added claim language or language to support claims 1-6 within the specification as originally filed. As such, Applicant is respectfully requested to clarify the above issues and to specifically point out support for the newly added limitations in the originally filed specification and claims. Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112- 2nd Paragraph

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claim 12 is rejected under 35 USC 112 second paragraph as being indefinite for failing to particularly point and distinctly claim the subject matter which applicant regards as the invention.
11. Claim 12 recites the limitation "...rating device only after all of are used..." Examiner believes this is a typographical error.

Claim Rejections - 35 USC § 103

12. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:
 - a. Determining the scope and contents of the prior art.
 - b. Ascertaining the differences between the prior art and the claims at issue.
 - c. Resolving the level of ordinary skill in the pertinent art.
 - d. Considering objective evidence present in the application indicating obviousness or nonobviousness.

13. Claims 1, 4-9, 12-18, 21-23, 26-32, and 35-38 are rejected under 35 USC 103(a) as being unpatentable over Ephraim et al., US Patent Application Publication No US 2004/0077332 A1 in view of Francis et al., "Design Issues for Prepaid Data Services", herein referred to as "Francis" in further view of Tubinis, US Patent Application Publication No US 2003/0014367A1.
14. With respect to Claim 1, 9, 14, 16, 17, 23, 25, 28, 30, 32, 34, 37, and 38, Ephraim discloses the following limitations,
 - *reserving resources from a prepayment system for prepaid data services* (see at least Abstract: "...A system (FIG. 1) and method for providing prepaid data transfer services to a subscriber (12) through a communication device, such as a wireless or wireline device..."), *the prepaid data services being divided into at least two service groups of different charging criteria in a network*(see at least paragraph 57: "...In this preferred embodiment, prepaid server 34 distributes tokens to both data monitor 38 and voice network 36, such that both types of services can optionally be operated on a prepaid basis. ..."), *wherein an initial data delivery limit is set for each service group based on the resources and information about the charging criteria* (see at least paragraph 29: "...A prepaid system monitors the data network in order to determine whether a particular requested data transfer service should be authorized, for

example, according to the amount available in the account of the subscriber..")

- *directing a message to be sent containing information about the initial data delivery limits from a rating device to a measuring device, wherein a proportional data delivery limit is allocated for each service group individually;*(see at least paragraph 39: "...As shown, prepaid server 34 communicates with data monitor 38 (optionally through Data Payment Server 32) in order to be able to determine the type of data transfer services which are being provided from Internet 24 and/or another external network. Data monitor 38 monitors all data traffic from Internet 24 and/or another external network, and reports on a number of characteristics of such traffic to prepaid server 34...")
- *and the proportional data delivery limit for each service group is defined as a proportion of the initial data delivery limit for the respective service group,*(see at least paragraph 12: "...According to preferred embodiments of the present invention, the calculation of the debit is divided into two parts...."; see at least paragraph 52: "...Data monitor 38 is preferably responsible for finding the exact rule which matches the data being monitored, and then to calculate a charge for the data transfer..")

Ephraim does not distinctly disclose the following limitations, but Francis however as shown discloses,

- *wherein remaining resources to the service groups are reallocated based on a pricing weight of each of the service groups (see at least page 4, definition of Prepaid Application Server (PAS): "...allocates quotas to PUP, tells the PUP whether to allow or deny service..."; paragraph 13, first paragraph, last sentence: "...the PAS should be able to shrink quotas so that the most efficient strategy, whatever it is may be implemented...")*

Ephraim discloses the use of pricing weights for different services in calculating a charge for a data transfer (paragraph 52) for controlling prepaid services while Francis discloses an efficient means for the PUP and PAS systems as an efficient means for measuring and enforcing usage, and shrinking quotas. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the system and method for providing prepaid data transfer services to a subscriber of Ephraim with the system for allowing multiple services from a prepaid account of Francis.

Ephraim and Francis disclose all of the above limitations, the combination of Ephraim and Francis does not distinctly disclose the following limitations but Tubinis however as shown discloses,

- *each pricing weight being defined for the respective service group as a proportion of a sum of the proportional data delivery limits to the initial data delivery limit of the service group to obtain a new proportional data delivery limit for each service group individually, (see at least paragraph*

194: "...In response to the downlink count threshold or the uplink threshold being reached...re-allocate the remaining information units between information units between a new downlink count threshold and a new uplink count threshold...")

- *the new proportional data delivery limits being for use in delivery of data after at least one of the service groups has exceeded its proportional data delivery limit.*(see at Abstract: "...To notify the client that a threshold for a service has been reached and/or to enable the client to top-up, either in-band or out-of-band sessions may be used based on any of a number of factors, including a characteristic of the session in progress implementing the service, the capabilities of the user terminal, the capabilities of the application and application server providing the service, or any combination thereof.....")

Ephraim discloses the use of pricing weights for different services in calculating a charge for a data transfer (paragraph 52) for controlling prepaid services while Francis discloses an efficient means for the PUP and PAS systems as an efficient means for measuring and enforcing usage, and shrinking quotas, Tubinis discloses allocating and reallocating proportional data delivery limits for each service group via downlink and uplink count thresholds. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the system and method for providing prepaid data transfer services to a subscriber of Ephraim and the

system for measuring, enforcing usage and shrinking quotas of Francis with the rating and accounting computer (count metering unit) of Tubinis.

15. With respect to Claim 4,

Ephraim, Francis, and Tubinis disclose all of the above limitations, Ephraim further discloses,

- *comprising receiving a report from the measuring device at the rating device only after all of the reserved resources are used.* (see at least paragraph 15: "...The prepaid system preferably allows packets to be transferred between the wireless device and the data service provider (server) only if the subscriber's account balance is sufficient and/or if the packets are "free". Optionally and more preferably, the system notifies the subscriber when the subscriber's balance is low or exhausted, for example via an SMS message or an HDML message sent to the wireless device. Alternatively, the prepaid system can optionally notify the subscriber by sending a message containing a pointer (for example a "recharge URL") to a page that contains such a message...")

16. With respect to Claim 5, 13, 18, 22, 27, 29, and 36,

Ephraim, Francis, and Tubinis disclose all of the above limitations, Ephraim further discloses,

- *wherein the initial data delivery limit is defined as a volume equivalent to a same amount of money for each service group. (see at least paragraph 12: "...According to preferred embodiments of the present invention, the calculation of the debit is divided into two parts....")*

17. With respect to Claims 6, 7, and 15,

Ephraim, Francis, and Tubinis disclose all of the above limitations, Ephraim further discloses,

- *a prepayment system hosting prepaid resources; (see at least Abstract: "...A system (FIG. 1) and method for providing prepaid data transfer services to a subscriber (12) through a communication device, such as a wireless or wireline device...")*

Ephraim discloses all of the above limitations, Ephraim doesn not distinctly disclose the following limitations, but Tubinis however discloses,

- *a rating device configured to receive information of the prepaid resources and of charging criteria of service groups and to set initial data delivery limits for the service groups based on the received information; and;(see at least paragraph 11: "...the rating and account balance information is stored in a separate computer 120 and the functions performed by the Prepaid Adjunct Processor are initialized by computer 120..."; paragraph 14: "...a rating and accounting subsystem can calculate the number of minutes or volume of information united (e.g., bytes) left to reach a*

prepaid threshold or spending threshold...”; paragraph 16: “...Once the unique code has been received and verified, and the meter of the Prepaid Adjunct Processor 118 has been re-initialized with the new values, the suspended call is allowed to continue...”)

- *a measuring device configured to allocate a proportional data delivery limit for each service group individually, wherein each proportional data delivery limit is defined as a proportion of the initial data delivery limit for the respective service group, to measure use of each of the service groups (see at least paragraph 242: “...after receiving a count threshold from SSF module 662, PIM 344A may meter the number of information units exchanged by incrementing the accumulative number of information units received as part of forwarding uplink session packets 160 and compare the accumulative number to the uplink threshold count, and may separately meter the number of information units received as part of forwarding downlink session packets in the same manner. If either the uplink or the downlink threshold count is reached, the PIM 344A may report both uplink and downlink usage to the SSF module 362, and if the combined usage is still smaller than the original total count threshold converted from the call period received from the SCF module 148, the SSF module may be configured to re-allocate the remaining information units between a new uplink threshold count and a new downlink threshold count...”)*

- *each pricing weight being defined for the respective service group as a proportion of a sum of the proportional data delivery limits to the initial data delivery limit of the service group to obtain a new proportional data delivery limit for each service group individually for delivery of data when a one of the groups exceeds its proportional data delivery limit., (see at least paragraph 194: "...In response to the downlink count threshold or the uplink threshold being reached...re-allocate the remaining information units between information units between a new downlink count threshold and a new uplink count threshold..."; Abstract: "...To notify the client that a threshold for a service has been reached and/or to enable the client to top-up, either in-band or out-of-band sessions may be used based on any of a number of factors, including a characteristic of the session in progress implementing the service, the capabilities of the user terminal, the capabilities of the application and application server providing the service, or any combination thereof.....")*

Ephriam and Tubinis disclose all of the above limitations, the combination of Ephriam and Tubinis does not distinctly disclose the following limitations but Francis however as shown discloses,

- *and to reallocate remaining free resources to the service groups based on a pricing weight of each of the service groups (see at least page 4, definition of Prepaid Application Server (PAS): "...allocates quotas to PUP, tells the PUP whether to allow or deny service..."; paragraph 13, first*

paragraph, last sentence: "...the PAS should be able to shrink quotas so that the most efficient strategy, whatever it is may be implemented...")

Ephraim discloses the use of pricing weights for different services in calculating a charge for a data transfer (paragraph 52) for controlling prepaid services while Tubinis discloses allocating and reallocating proportional data delivery limits for each service group via downlink and uplink count thresholds and Francis discloses a PUP and PAS system as an efficient means for measuring and enforcing usage, and shrinking quotas. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the system and method for providing prepaid data transfer services of Ephraim and the rating and accounting computer (count metering unit) of Tubinis with the measuring, enforcing usage and shrinking quotas of Francis.

18. With respect to Claim 8,

Ephraim, Francis, and Tubinis disclose all of the above limitations, Ephraim further discloses,

- *wherein the at least one data communication network comprises a packet core communication network for communication of data between users and the measuring device and a public data network for communication of data between the measuring device and providers of the prepaid services.*(see at least paragraph 11: "...the subscriber uses a wireless

device, such as a cellular telephone for example, to access data services, such as SMS or the Internet. The request for access is intercepted by the prepaid billing system of the present invention, which is preferably connected between the external network and a GGSN, or other gateway, which resides between the external network (such as the Internet) and the internal data network (such as an internal GPRS packet network)...")

19. With respect to Claims 12,

Ephraim, Francis, and Tubinis disclose all of the above limitations, Ephraim further discloses,

- *wherein the measuring device is further configured to direct a report to be sent from the meter to the rating device only after all of the reserved resources are used. (see at least paragraph 15: "...The prepaid system preferably allows packets to be transferred between the wireless device and the data service provider (server) only if the subscriber's account balance is sufficient and/or if the packets are "free". Optionally and more preferably, the system notifies the subscriber when the subscriber's balance is low or exhausted, for example via an SMS message or an HDML message sent to the wireless device. Alternatively, the prepaid system can optionally notify the subscriber by sending a message containing a pointer (for example a "recharge URL") to a page that contains such a message. ...")*

20. With respect to Claim 21, 26, and 35,

Ephraim, Francis, and Tubinis disclose all of the above limitations, Ephraim further discloses,

- *after all of the reserved resources are used, a report is directed to be sent from the apparatus to a rating device configured to obtain information of the prepaid resources (see at least paragraph 39: "...Data monitor 38 monitors all data traffic from Internet 24 and/or another external network, and reports on a number of characteristics of such traffic to prepaid server 34. Such characteristics include, but are not limited to, the type of data being transferred and/or the type of data which is requested to be transferred, the amount of data being transferred and the identity of the subscriber (or wireless device 12) for which the data is being transferred..")*
- *and of the charging criteria of service groups and to set the initial data delivery limits for the service groups based on the obtained information.(see at least paragraph 39: "...Music data might optionally be charged at a lower rate than other kinds of data packets. Packets with error messages might be free. Thus, data monitor 38 more preferably calculates the charge for the data transfer according to an arbitrary internal unit, which is described in greater detail below as a "token", which*

most preferably does not require any information about one or more characteristics of the subscriber...")

Response to Arguments

21. Applicant's arguments with respect to the amended claims have been considered but are not persuasive. Ephraim discloses the use of pricing weights for different services in calculating a charge for a data transfer (paragraph 52) for controlling prepaid services while Francis discloses an efficient means for the PUP and PAS systems as an efficient means for measuring and enforcing usage, and shrinking quotas, Tubinis discloses allocating and reallocating proportional data delivery limits for each service group via downlink and uplink count thresholds. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the system and method for providing prepaid data transfer services to a subscriber of Ephraim and the system for measuring, enforcing usage and shrinking quotas of Francis with the rating and accounting computer (count metering unit) of Tubinis.

Conclusion

22. Any inquiry of a general nature or relating to the status of this application or concerning this communication or earlier communications from the Examiner should be directed to **Kimberly L. Evans** whose telephone number is **571.270.3929**. The Examiner can normally be reached on Monday-Friday, 9:30am-5:00pm. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, **John Weiss** can be reached at **571.272.6812**.
23. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://portal.uspto.gov/external/portal/pair> <<http://pair-direct.uspto.gov> >. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at **866.217.9197** (toll-free). Any response to this action should be mailed to: **Commissioner of Patents and Trademarks**, P.O. Box 1450, Alexandria, VA 22313-1450 or faxed to **571-273-8300**. Hand delivered responses should be brought to the **United States Patent and Trademark Office Customer Service Window**: Randolph Building 401 Dulany Street, Alexandria, VA 22314.

Application/Control Number: 10/617,751

Page 18

Art Unit: 3629

//KIMBERLY EVANS/

Examiner, Art Unit 3629

/JOHN G. WEISS/

Supervisory Patent Examiner, Art Unit 3629